DOCUMENT RESUME

ED 204 377 TM 810 365

AUTHOR Way, Joyce W.
TITLE A Manual for Small Program Evaluation.
INSTITUTION New York State Univ., Coll. at Cortland. Inst. for Experimentation in Teacher Education.
PUB DATE Feb 81
NOTE 46p.

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Elementary Secondary Education; *Evaluation Methods; *Program Effectiveness; *Program Evaluation; Program Improvement

ABSTRACT

This manual is designed to benefit those interested in the improvement of small programs, focusing on techniques used to check on a program's goal achievement. A small program is defined, for the purpose of this manual, as one that affects a limited number of students (less than 100) and is taught by a limited staff (5 or less) with limited or no special funding (less than $5,000). The step-by-step format is structured according to seven "tasks." These tasks include the following: (1) Decide What to Evaluate; (2) Define Goals and Objectives; (3) Determine the Evaluation Technique for Each Objective; (4) Develop Needed Instruments; (5) Review Your Evaluation Design; (6) Data Collection; (7) Summarize the Results; (8) Write the Evaluation Report; and (9) Make Decisions About Your Program Based on the Evaluation Results. (Author/GK)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED2043777

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

J. Way

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Institute for Experimentation in Teacher Education

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

CENTER FOR RESEARCH AND DEVELOPMENT

Joyce W. Way, Director

STATE UNIVERSITY OF NEW YORK COLLEGE AT CORTLAND

TM 810 325

A MANUAL FOR SMALL PROGRAM EVALUATION

by

Joyce W. Way, Ed.D.

February 1981

The author wishes to thank Sally Doxtater, Harriet Haines, Jean Reagan and Nancy Werder for their valuable assistance in preparing this manual. These Quest family room faculty members at the Institute were particularly helpful in spotting gobbledygook in need of clarity and precision for manual users.

Manual for Small Program Evaluation

This manual is designed for people who would like to evaluate small educational programs. Since small in this context does not imply that the program is trivial or limited in significance, a definition of small program seems to be needed before proceeding further. A small program for the purpose of this manual is defined as a program that affects a limited number of students (e.g., less than 100) and is taught by a limited staff (e.g., 5 or less) with no or limited special funding (e.g., less than $5,000). A small program might include one or more classrooms taught in an instructional area, e.g., language arts. A small program might include several teachers united in teaching according to a philosophical concept or teaching method, e.g., open education or a method of individualized instruction. A small program in its simplist form might be one teacher teaching one group of students in a special area or way.

Whatever the composition of the small program, the people who will find this manual useful will have several common needs. They want evaluation information about their program for the purpose of improving it. However, they have no training in evaluation techniques and little money budgeted for evaluation expenses. If this scenario describes your program and evaluation needs, this manual may provide the assistance you need to successfully evaluate your program.

Task 1: Decide What To Evaluate

An evaluation must ask specific questions about a program. Questions will focus the evaluation on the kind of information desired. It would be impractical if not impossible to evaluate everything about a program. The evaluation should be limited to those aspects of the program you consider most important. Some evaluation questions that might be asked

about a program are:

- How well did the program achieve its goals?
- What are the merits of the program compared with alternative programs?
- For which groups was the program most/least successful?
- Was the program cost effective?
- What social and political effects did the program have within the school or local community?
- Was the program implemented as planned?

A very popular evaluation technique is to compare a program to an alternative program. This evaluation design requires an appropriate and available comparison program and it requires knowledge about hypothesis testing techniques in order to compare the two programs. Finding an appropriate comparison group has become increasingly difficult in most educational settings and a lay evaluator would not find this technique easy to use.

Many of the other evaluation questions also require a person with evaluation expertise to design and implement the evaluation. If you do not have training in evaluation techniques and have a limited budget, you will need to limit your evaluation to a question that will provide valuable information about your program and yet one that can be implemented without extensive training. Because it is more manageable for the lay evaluator, this manual describes how to evaluate a program using the first question. It will focus on techniques that can be used to check on a program's goal achievement. If you prefer to use another evaluation technique, this manual will not be helpful.

Task 2: Define Goals and Objectives

An evaluation that looks at achievement of a program's goals must have clearly stated goals to evaluate. If your program is typical of many small programs, one of the following conditions probably exists:

- Written goals do not exist.
- Written goals exist but they no longer totally apply to the program as it is now being implemented. In other words the goals are out of date.
- Written goals exist but they are very vague and general. The goals as a group are so encompassing they fit most educational programs and are not unique to your program.
- Written goals exist but they are too idealistic. As a consequence, it would not be realistic to expect your program or any program to reach them.

The goals for most small programs usually suffer from at least one of these conditions. If your program does, you will need to clarify the goals before you begin the evaluation. You should draw up a brief description of your program that includes its philosophical goals. It is even helpful to summarize your philosophical goals as program components.

EXAMPLE:

Description of the Quest Program

Quest is a program structured to develop responsibility in children by providing them with opportunities to select some of their classes and allowing them to go to these classes independently without direct adult supervision. The program provides for interaction with people of a wide variety of ages by the multiage grouping of children in classrooms and their exposure to a wide variety of adults. Special emphasis is placed on teaching children respect for people of all ages and teaching them responsibility for their own actions while continuing to develop academic skills and maintain positive self-concepts in children.

The Quest Program consists of two homeroom sections with 20-25 primary children, ages 6, 7, and 8, in each classroom and two other sections with 20-25 intermediate children, ages 9, 10 and 11, in each classroom. The children remain with their family room teacher for three years so that

continuity and stability will be provided. Certain basic courses (math, reading, language arts, social studies and science) are required, and the children are able to choose from special interest areas such as health, art, home ec., library, music, industrial arts and physical education. In some of these interest areas the age range is 6-11.

In addition to the multiage classroom structure, experiences with a wide variety of adults are provided. These adults include teachers, parents, college students and senior citizens. It is intended that exposure to such a variety of people will provide opportunities to teach children skills in human relations.

We believe that the evaluation of this program should begin by focusing on those aspects which make the program unique, and should also examine some features common to other programs, those of academic achievement and self-concept. We see the four main components of the program as being responsibility, human relations, academic achievement and self-concept, with the component of multiage grouping flowing between each of the other components.

Once the philosophical goals are clearly stated, operational goal statements need to be generated for each philosophical goal (program component). An operational goal statement is a specific statement about a philosophical goal written in terms of the expected program outcome. There may be one or more than one operational goal statement(s) for each philosophical goal.

EXAMPLE:

Philosophical Goal (Program Component)	Operational Goal Statements
1. Academic Achievement	1.1 The achievement of children will be comparable to national norms for children of their age group.

2. Self-Concept	2.1 The self-concept of children will be comparable to national norms for children.
3. Human Relations	3.1 Children will demonstrate comfortable relationships with adults.
	3.2 Children will demonstrate comfortable relationships with other children.
4. Responsibility	4.1 Children will demonstrate their knowledge of what it means to be a good school citizen.
	4.2 Children will understand and appreciate their responsibilities in the Quest Program.
	4.3 Children will successfully plan, write and implement their individual schedules.

You will notice from the above example that responsibility is a complex goal that needed several operational goal statements. All aspects of what it means to be a responsible human can not be evaluated. This program selected several aspects of being a responsible person that children would experience in this program and could be measured in some way. It focused on children knowing and understanding what it means to be responsible school citizens, understanding their responsibilities in this program, and demonstrating responsibility in planning and implementing their individual school program. It is important to limit operational goals to your program's possible effects and those you can actually measure.

You must now write a specific behavioral objective for each operational goal statement. A behavioral objective is a statement that contains five elements: (1) person or object to be changed, (2) description of the change, (3) description of program causing change, (4) date by which change will be accomplished, (5) criteria used to judge success in achieving change. A typical behavioral objective would look like this:

1. Person or object to be changed	1. Children in each age group
2. Description of change	2. will demonstrate academic achievement

3. Description of program causing change	3. as a result of participating in the Quest program
4. Date by which change will be accomplished	4. during the 1980-81 school year
5. Criteria used to judge success in achieving change	5. on the Stanford Achievement Tests by scoring at the 5th stanine or higher using national norms.

Probably the description of the program and the date by which change will be accomplished will remain the same for all your behavioral objectives. As a consequence you may not wish to restate them for each objective. You may have one or more than one objective for each operational goal.

The criteria for attainment of objectives are arbitrarily set based on logic. While arbitrary criteria setting may seem to lack scientific rigor, it is actually little different from arbitrarily choosing a significance level for a classical research design. The assumption is usually made that most children should be able to attain a program's objectives although there would always be a few who would not for various reasons. Therefore, the criteria for most objectives are usually set at 80%, e.g., an average score of at least 80% correct or 80% of the children accomplishing some task. It might be appropriate for some criteria to be lower than 80%. In the Quest program example, primary children were expected to perform less well than intermediate children for some objectives so the criteria for the primary children were set at 70% while the criteria for intermediate children remained at 80%.

The criteria for some survey items for the Quest evaluation were also adjusted to account for respondent uncertainty. For example, parents of Quest children were asked to respond to this item: "The Quest program helps my child feel comfortable with adults." This was a strong statement that went beyond parents' perceptions of their children's relationships with adults and additionally asked if they thought the Quest program contributed to developing positive relationships. It was felt that parents might be undecided about whether or not any positive relationships their children had with adults had been influenced

by the Quest program. As a consequence the criterion for this objective stated that at least 60% of the parents responding to the survey indicate agreement with the statement and no more than 20% disagreement. This objective still maintained the 80% criterion in terms of perceived negative effects but it also allowed for some uncertainty in terms of positive effects. It was expected that at least 60% of the parents should attribute part of their children's comfortable relationships with adults to the Quest program.

EXAMPLE:

Component	Goal	Objective
1. Academic Achievement	1.1. The achievement of children will be comparable to national norms for children of their age group.	1.1.1 Each age group will demonstrate academic achievement on the Stanford Achievement Tests by scoring at the 5th stanine or higher using national norms.
2. Self-Concept	2.1 The self-concept of children will be comparable to na onal norms for children.	2.1.1 Children will score an average of at least 55 (50th percentile) on the Piers-Harris Children's Self-Concept Scale
3. Human Relations	3.1 Children will demonstrate comfortable relationships with adults.	3.1.1 Children will demonstrate comfortable relationships with adults by at least 80% of the children interacting positively with adults other than the teacher in the classroom. The interactions will be random across age groups. 3.1.2 Children will perceive that their relationships with adults are comfortable by at least 60% responding positively and no more than 20% responding negatively to survey items.

Component	Goal	Objective
		3.1.3 Parents will perceive that their children's relationships with adults have improved since enrollment in the Quest program by at least 60% of the parents responding positively and no more than 20% responding negatively to a survey item.
	3.2 Children will demonstrate comfortable relationships with other children.	3.2.1 Children will demonstrate comfortable relationships with other children by randomly interacting across age groups.
		3.2.2 Children will perceive that their relationships with other children are positive by at least 60% responding positively and no more than 20% responding negatively to survey items.
		3.2.3 Parents will perceive that their children's relationships with other children have improved since enrollment in the Quest program by at least 60% of the parents responding positively and no more than 20% responding negatively to a survey item.
4. Responsibility	4.1 Children will demonstrate their knowledge of what it means to be a good school citizen.	4.1.1 Children will demonstrate knowledge of school rules by correctly answering items on school rules. The criterion will be a group average of at least 70% correct responses for primary children and at least 80% correct responses for intermediate children.
		[*80% of the children will demonstrate compliance with school rules]
	4.2 Children will understand and appreciate their responsibilities in the Quest program.	4.2.1 Children will demonstrate knowledge about their responsibilities in the Quest program. The criterion will be a group average of at least 70% correct responses for primary children and at least 80% correct responses for intermediate children.

*This objective was eliminated because an appropriate evaluation technique could not be found.

Component	Goal	Objective
		4.2.2 Children will demonstrate a positive attitude toward their responsibilities by at least 60% responding positively and no more than 20% responding negatively to survey items.
		4.2.3 Parents will perceive that their children are more responsible since enrollment in the Quest program by at least 60% of the parents responding positively and no more than 20% responding negatively to survey items.
	4.3 Children will successfully plan, write and implement their individual schedules.	4.3.1 At least 80% of the children will successfully plan schedules for themselves.
		4.3.2 At least 80% of the children will take responsibility for writing their own schedules. This objective will be limited to those children who have sufficient writing skills.
		4.3.3 At least 80% of the children will leave their family rooms independently and arrive at their scheduled interest areas on time.
		4.3.4 At least 80% of the children will meet the expectations of the interest areas attended.

Now you have your program's goals and objectives defined. If you carefully wrote your behavioral objectives, you have much of your evaluation designed also. As you are writing your goals, you may find that you are overwhelmed by too many possible goals. You may have to limit your evaluation to the most important goals. You must consider your resources and your time and what is reasonable to accomplish in one evaluation. You may find that some goals simply can't be measured and therefore must be eliminated.

Task 3 Determine the Evaluation Technique for Each Objective

An evaluation technique that measures whether the criteria for the objectives have been satisfied must be determined for each objective. Here are some typical types of evaluation techniques:

-Commercially available measuring instruments, e.g., standardized tests and surveys that can be purchased from publishers

-Tests you develop yourself

-Attitudinal surveys you develop yourself

-Behavioral observations

You must select an appropriate technique to measure each objective. As you are working on this you may find that some objectives aren't measurable. You must either revise the objective or eliminate it. You probably will find that several objectives can be measured using one instrument. Make a list of the instruments you will need for data collection and the corresponding objectives each instrument will measure. If instruments are commercially available to measure objectives, be sure to use them. There are several good sources of information on standardized tests. A reference librarian at an academic library should be able to help you. Two good sources are O.K. Buros' mental measurement yearbooks and the Educational Resources Information Center (ERIC).

EXAMPLE:

Objective Measured	Instrumentation
1. Obj. 1.1.1	1. St nford Achievement Tests - Total Reading, Total Math, Total Social Studies, Total Science Scores
2. Obj. 2.1.1	2. Piers-Harris Children's Self-Concept Scale - Total Score
3. Obj. 4.1.1, Obj. 4.2.1	3. Knowledge Test on School Rules and Quest Program Responsibilities
4. Obj. 3.1.2, Obj. 3.2.2, Obj. 4.2.2	4. Attitudinal Survey for Children
5. Obj. 3.1.3. Obj. 3.2.3, Obj. 4.2.3	5. Attitudinal Survey for Parents

6. Obj. 3.1.1	6. Recording Form -- Interaction with Adults
7. Obj. 3.2.1	7. Recording Form - Interaction Among Children of Various Ages
8. Obj. 4.3.1, Obj. 4.3.2	8. Recording Forms - Planning and Writing a Schedule
9. Obj. 4.3.3, Obj. 4.3.4	9. Recording Forms - Quest Program Responsibilities

An appropriate evaluation technique could not be found to measure one of the original objectives. This objective would have measured whether children were complying with the school rules. Reports on children's behavior were thought to be unreliable. Observations of general school behavior was not practical. This objective was, therefore, eliminated.

Task 4 Develop Needed Instruments

Any instruments that are not commercially available will need to be developed. Below are some suggestions for developing the various types of instruments.

Tests

Multiple-choice items are the most useful for measuring learning outcomes at the knowledge, understanding and application level. Open-ended questions are very difficult to score and are subject to various interpretations. Short answer items and true-false items do not measure student outcomes at the understanding and application levels. Guessing will produce correct responses half the time with true-false items.

Grounlund lists some basic rules for writing good multiple-choice items:[1]

Rules for Writing Multiple-Choice Items

1. Write a stem that presents a single, definite problem.
2. Keep the reading level low (avoid wordiness and complex sentence structure).

3. If the stem calls for the exception, emphasize it (e.g., all of the following... EXCEPT).

4. Keep the alternatives brief (put all common wording in the stem of the item).

5. Make the alternatives similar in form and grammatically consistent with the stem.

6. Write distracters that are plausible to the nonachiever (use common errors and misconceptions).

7. Avoid clues to the correct answer (verbal associations, textbook language, length of alternatives, grammatical clues).

8. Put verbal answers in alphabetical order and numerical answers in numerical order

9. Avoid the alternatives "none of the above" and "all of the above."

10. Review each completed item for clarity and for relevance to the specific learning outcome to be measured.

Remember the test that you are preparing is designed to measure the achievement of an objective. Every item must sample from the domain covered by the objective. One test, however, may have several subtests. In this case each subtest would sample from the domain of one objective. If you have several subtests, you will probably want about an equal number of items for each one. After the test is administered and corrected, separate scores will need to be computed for each subtest. Grounlund suggests putting verbal answers to items in alphabetical order and numerical answers in numerical order. You may find the verbal answers to your items begin with the same word making this advice impractical. Another method is to randomly select the position of the correct answer. A table of random numbers is useful for this task.

---

[1]Gronlund, N.E. Preparing Criterion-Referenced Tests For Classroom Instruction. New York: Macmillan Co., 1973, p. 38-39.

EXAMPLE:

Quest Program Knowledge Test

Objective Domain	Test Item
Obj. 4.1.1 School Rules	____1. The rules of the school are for a. the Campus School children b. the Campus School children and teachers c. the Campus School children and college students d. everyone who comes into the school
Obj. 4.1.1 School Rules	____6. Which one is okay to do a. Take your friend's pencil when you don't have one to use b. mark something you want to remember in a library book c. take your friend's sandwich if he/she offers it to you d. open someone's locker to see if something you lost is there
Obj. 4.1.1 School Rules	____10. Which one is okay to do a. bring a knife to school to show your friends during family room time b. use matches in the Science Lab while doing an experiment with your class c. pick up gum wrappers from the hall floor and carefully place them in the water fountain d. walk to your class in your socks because your shoes are wet from playing outside

Obj. 4.2.1 Quest Program Responsibilities

____11. Which one is okay to do

a. change your schedule without telling your teacher so you won't bother her/him

b. go to the library instead of the place your schedule says because it's close by and you're late

c. ask your teacher if you can change your schedule so you can get extra music practice

d. follow your friend's schedule with him because his other friend is out sick

Obj. 4.2.1 Quest Program Responsibilities

____13. In the Quest program the interest areas can be scheduled for you by

a. you, your family room teacher, and your parents

b. you and the interest area teachers

c. your family room teacher and your parents

Obj. 4.2.1 Quest Program Responsibilities

____17. Which is true

a. you will be able to attend the interest area of your choice any time of day you choose

b. you will be able to attend every interest area every day

c. you will have the chance to attend all interest areas during the year

d. you need to know the lunch time for each interest area teacher

All of these items test knowledge in two objective domains (4.1.1 and 4.2.1). A table of random numbers was used to determine placement of the correct answer. Here is how that is done. Look at the page of random numbers on page sixteen. You may start any

place in the table. This example starts at the number circled and continues down the column. We have four possible answers for each item so the correct answer could be in one of the four positions (1, 2, 3, 4). The number '3' occurs first in the random number table so 'c' (the third position) will be the correct answer position for Item No. 1. The distracters are then 'a', 'b', and 'd'. As we go down the random number column, '1' occurs next. Therefore 'a' will be the position for the correct answer to Item No. 2. Continuing down the column, '1' occurs again so 'a' will be the correct answer position for Item No. 3 on the test. Continue to assign correct answer positions for all test items.

RANDOM UNITS

Line/Col.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
61	03931	33309	57047	74211	63445	17361	62825	39908	05607	91284	68833	25570	38818	46920
62	74426	33278	43972	10119	89917	15665	52872	73823	73144	88662	88970	74492	51805	99378
63	09066	00903	20795	95452	92648	45454	09552	88815	16553	51125	79375	97596	16296	66092
64	42238	12426	87025	14267	20979	04508	64535	31355	86064	29472	47689	05974	52468	16834
65	16153	08002	26504	41744	81959	65642	74240	56302	00033	67107	77510	70625	28725	34191
66	21457	40742	29820	96783	29400	21840	15035	34537	33310	06116	95240	15957	16572	06004
67	21581	57802	02959	89728	17937	37621	47075	42080	97403	48626	68995	43805	33386	21597
68	55612	78095	83197	33732	05810	24813	86902	60397	16489	03264	88525	42786	05269	92532
69	44657	66999	99324	51281	84467	60563	79312	93454	68876	25471	93911	25650	12682	73572
70	91340	84979	46949	81973	37949	61023	43997	15263	80644	43942	89203	71795	99533	50501
71	91227	21199	31935	27022	84067	05462	35216	14486	29891	68607	41867	14951	91696	85065
72	50001	38140	66321	19924	72163	09538	12151	06878	91903	18749	34405	56087	82790	70925
73	65390	05224	72958	28609	81406	39147	25549	48542	42627	45233	57202	94617	23772	07896
74	27504	96131	83944	41575	10573	08619	64482	73923	36152	05184	94142	25299	84387	34925
75	37169	94851	39117	89632	00959	16487	65536	49071	39782	17095	02330	74301	00275	48280
76	11508	70225	51111	38351	19444	66499	71945	05422	13442	78674	84081	66938	93654	59294
77	37449	30362	06694	54090	04052	53115	62757	95348	78662	11163	81651	50245	84971	52924
78	46515	70331	85922	38329	57015	15765	97161	17869	45349	61796	66345	81073	49106	79860
79	30986	81223	42416	58353	21532	30502	32305	86482	05174	07901	54339	58861	74818	46942
80	63798	64995	46583	09785	44160	78128	83991	42865	92520	83531	80377	35909	81250	54238
81	82486	84846	99254	67632	43218	50076	21361	64816	51202	88124	41870	52689	51275	83556
82	21885	32906	92431	09060	64297	51674	64126	62570	26123	05155	59194	82799	28225	85762
83	60336	98782	07408	53458	13564	69019	26445	29789	85205	41001	12535	12133	14645	23541
84	43937	46891	24010	25560	86355	33941	25786	54990	71899	15475	95434	98227	21824	19585
85	97656	63175	89303	16275	07100	92063	21942	18611	47348	20203	18534	03862	78095	50136
86	03299	01221	05418	38982	55758	92237	26759	86367	21216	98442	08303	56613	91511	75928
87	79626	06486	03574	17668	07885	76020	79924	25651	83325	88428	85076	72811	22717	50585
88	85636	68335	47539	03129	65651	11977	02510	26113	99447	68645	34327	18152	55230	93448
89	18039	14367	61337	06177	12143	46609	32989	74014	64708	00533	35398	58408	13261	47908
90	08362	15656	60627	36478	65648	16764	53412	09013	07832	41574	17039	82163	60859	75567
91	79556	29068	04142	16268	15387	12856	66227	38358	22478	73373	88732	09443	82558	05250
92	92608	82674	27072	32534	17075	27698	98204	63863	11951	34648	88022	56148	34925	57031
93	23982	25835	40055	67006	12293	02753	14827	23235	35071	99704	37543	11601	35503	85171
94	09915	96306	05908	97901	28395	14186	60821	80703	70426	75647	76310	88717	37890	40129
95	59037	33300	26695	62247	69927	76123	50842	43834	86654	70959	70725	93872	28117	19233
96	42488	78077	69882	61657	34136	79180	97526	43092	04098	73571	80799	76536	71255	64239
97	46764	86273	63003	93017	31204	36692	40202	35275	57306	55543	53203	18098	47625	88684
98	03237	45430	55417	63282	90816	17349	88298	90183	36600	78406	06216	95787	42579	90730
99	86591	81482	52667	61582	14972	90053	89534	76036	49199	43716	97548	04379	46370	28672
100	38534	01715	94964	87288	65680	43772	39560	12918	80537	62738	19636	51132	25739	56947
101	13284	16834	74151	92027	24670	38665	00770	22878	02179	51602	07270	76517	97275	45960
102	21224	00370	30420	03883	94648	89428	41583	17564	27395	63904	41548	49197	82277	24120
103	99052	47887	81085	64933	66279	80432	65793	83287	34142	13241	30590	97760	35848	91983
104	00199	50993	98603	38452	87890	94624	09721	57484	67501	77638	44331	11257	71131	11059
105	60578	06483	28733	37867	07936	98710	98539	57186	31237	80612	44488	97819	70401	95419
106	91240	18812	17441	01929	18163	69201	31211	54288	39296	37318	65724	90401	79017	62077
107	97458	14229	12063	59611	32249	90466	33216	19358	02591	54263	88449	01912	07436	50813
108	35249	38646	34475	72417	60514	69257	12489	51924	86871	92446	36607	11458	30440	52639
109	38980	46600	11759	11900	46743	27860	77940	39298	97838	95145	32378	68038	89351	37005
110	10750	52745	38749	87365	58959	53731	89295	59062	39404	13198	59960	70408	29812	83126
111	36247	27850	73958	20673	37800	63835	71051	84724	52492	22342	78071	17456	96104	18327
112	70994	60986	99744	72438	01174	42159	11392	20724	54322	36923	70009	23233	65438	59085
113	99638	94702	11463	18148	81386	80431	90628	52506	02016	85151	88598	47821	00265	82525
114	72055	15774	43857	99805	10419	76939	25903	03544	21560	83471	43989	90770	22965	44247
115	24038	65541	85788	55835	38835	59399	13790	35112	01324	39520	76210	22467	83275	32286
116	74976	14631	35908	28221	39470	91548	12854	30166	09073	75887	36782	00268	97121	57676
117	35553	71628	70189	26436	63407	91178	90348	55359	80392	42012	36270	77786	89578	21059
118	35676	12797	51434	82976	42010	26344	92920	92155	58807	94914	58581	95331	78629	73344
119	74815	67523	72985	23183	02446	63594	98924	20033	55842	85961	07648	70164	34994	67652
120	45246	88048	65173	50989	91060	89894	36036	32819	68559	99221	49475	50558	34698	71800
121	76530	47069	86378	41797	11910	49672	88575	97966	32466	10083	54728	81972	58975	30761
122	19689	90332	04315	21358	97228	11188	39062	63312	52496	07349	79178	33692	57352	72862
123	42751	35318	97513	61537	54955	08156	00337	80778	27507	95478	21252	12746	37554	97775
124	11946	22681	45045	13964	57517	59419	58045	44067	58716	58840	45557	96345	33271	53464
125	96518	48688	20996	11090	48396	57177	83867	86464	14342	21545	46717	72364	80954	55580
126	35726	58643	76809	84622	39098	36083	72505	92265	23167	60278	05822	46760	44294	07672
127	39737	42750	48968	70536	84864	64952	38404	94317	65402	13589	01055	79044	19308	83623
128	97025	66492	56177	04049	80312	48028	26408	43591	75528	65341	49044	95495	81256	53214
129	62814	08075	09788	56350	76787	51591	54509	49295	85830	59860	30883	89660	96142	18354
130	25578	22950	15227	83291	41737	79599	96191	71845	86899	70694	24290	01551	80092	82118

RANDOM UNITS

From C.R.C. Standard Mathematical Tables, Twelfth Edition. Cleveland: Chemical Rubber Publishing, 1952, p. 240-1.

As you are preparing your test, be sure to write enough items so you have a good sample from each domain. However, do not have so many items that children become tired. You must also consider the time available to administer the test without interruptions. You might consider 15 items for each of two domains. This gives a 30 item test.

Tests that measure complex levels of achievement (understanding and application) should use examples that were not taught directly. Students should be asked to apply their knowledge to a novel situation.

EXAMPLE

Quest Program Knowledge Test (Understanding and application items)

Objective Domain	Test Item
	On the day of the pet show, John was bringing his pet mouse to school. As he cut through the parking lot, he met Mary carrying her pet cat. A car drove by them and honked its horn. John jumped out of the way and dropped the mouse's box. Mary's cat got loose and caught John's mouse. They were all late for the pet show.
Obj. 4.1.1 School Rules	____5. What school rule was broken in this story? a. John and Mary walked to school through the parking lot. b. John and Mary were late for school. c. John and Mary should not have walked together with a cat and a mouse. d. The driver shouldn't have honked the horn.

Objective Domain	Test Item
	It was the day to make a schedule. Tim wanted to go to Art, Home Ec. and I.A. The night before he had talked with his parents about his schedule. They thought he should try this interest area. Tim put Art, Home Ec., I.A. and Music on his schedule.
Obj. 4.2.1 Quest Program Responsibilities	_____12. What is the most important reason for Tim to plan his own schedule? a. so he could help decide which interest areas to attend b. his teacher doesn't have time to make schedules for everyone in the class c. so he would know where to go each period d. so the interest area teachers would know who's coming to their classes
Obj. 4.2.1 Quest Program Responsibilities	_____13. Why could Tim's parents help him with his schedule? a. because Tim's mother is a teacher b. so his parents will know what he is taking c. so his teacher doesn't have to help him d. because his parents want him to learn things in different interest areas

Objective Domain	Test Item
Obj. 4.2.1 Quest Program Responsibilities	_____14. Why should Tim try Music even though he doesn't usually choose this interest area? a. because he likes to be on stage for performances and going to Music will give him a chance to perform b. because there are too many kids in I.A. c. because Tim doesn't know what Music is like this year until he tries it for a few weeks d. because Tim wants to follow his friend's schedule

Attitudinal Surveys

All items on your surveys must relate to the objectives of the program. Here are some basic qualities Orlich[1] suggests surveys should have

--Parsimony. Ask only for information which cannot be obtained elsewhere

--Specificity. Questions which are too general can only lead to overly generalized conclusions which may not be very important

--Respondent's Knowledge. Do not ask questions of individuals who do not have adequate information to make a rational response.

--Single Variable Items. Do not combine two traits, variables or events in one item. The respondent may feel one way about one trait and another way about the second

---

[1] Orlich, D.C. Designing Sensible Surveys. Pleasantville, NY: Redgrave Publishing, 1978, p. 20-40.

--Simplicity. Do not use complex terminology. Your questions may be misunderstood.

--Manageability. Design your survey to be efficient and easy to use. Remember you are asking people to take their time to answer your survey.

EXAMPLE:

Poor Item

2. The Quest Program helps to teach my child responsibility at school and at home.

( ) Strongly Agree

( ) Agree

( ) Undecided

( ) Disagree

( ) Strongly Disagree

This question combines responsibility at school with responsibility at home. Two traits are combined in one question. Parents may agree that this program teaches responsibility at school but not at home.

Better

2. The Quest Program helps to teach my child responsibility at school.

( ) Strongly Agree

( ) Agree

( ) Undecided

( ) Disagree

( ) Strongly Disagree

3. The Quest Program helps to teach my child responsibility at home.

( ) Strongly Agree

( ) Agree

( ) Undecided

( ) Disagree

( ) Strongly Disagree

Besides these suggestions from Orlich, you should also make your surveys readable. This is an important consideration if you design surveys for children. Surveys to parents must consider their varying educational levels.

As you are preparing your survey, consider the various response modes. Open-ended questions do not include response categories and the respondent is free to respond in any desired manner. Open-ended questions are very difficult to summarize meaningfully. They also require more time and effort from the respondent. It is usually best not to use open-ended questions. Forced-response questions are better for most survey questions. Forced-choice responses can be exhaustive and mutually exclusive or there can be categories for multiple responses. The respondent can select only one category under mutually exclusive response type. Multiple responses allow the respondent to check as many response categories as apply.

EXAMPLE:

Open-ended Response Mode

5. As a parent of a Quest program child, what do you think are the strong points of the Quest program?_____

_____

_____

_____

_____

The responses to this question would be very difficult to summarize because different parents might respond to different aspects of the program. One parent might react to the classroom instruction, another to the multiage grouping structure, and still another to the subject matter taught. Although the item is easy to write, the respondents have to work very hard to give you a response. Most probably they won't make the effort. The question also violates most of the qualities Orlich lists for good surveys.

Mutually Exclusive Forced Choice Response Mode

12. The instruction in basic skills is adequate for my child.

( ) Strongly Agree ( ) Agree ( ) Undecided ( ) Disagree ( ) Strongly Disagree

This item focuses on one aspect of the Quest program. Only one response category can be used by the parent.

Multiple Category Forced Choice Response Mode

15. Which of the following interest areas provided adequate instruction for your child?

_____ Art _____ Music

_____ Health _____ Physical Education

_____ Home Economics _____ Science

_____ Industrial Arts

Parents may check more than one response to this question. Both of these forced choice response mode questions require little response time from parents. Parents are more likely to make the effort to fill out surveys with these types of questions.

As you are planning the format for questions, be sure they are easy for the respondent to use without confusion and lend themselves to easy tabulation.

EXAMPLE

Poor

Circle your sex: Female Male. Check your ethnic background,

Black or Afro-American___Oriental or Asian___ American Indian or other

Native American___Spanish Surname___ Caucasian (Other than Spanish surname)___

Other (please specify)___ Please write your year of birth_____.

These questions are not only awkward to read, but also it will be difficult to tabulate the results.

Better

Kindly check only one item for each question.

1. Your sex is: (1) ___Female (2)___Male

2. Your ethnic background is:

   (1) ___Black or Afro-American

   (2) ___Oriental or Asian

   (3) ___American Indian or other Native American

   (4) ___Spanish surname

   (5) ___Caucasian (other than Spanish surname)

   (6) ___Other (please specify)_____ _____

3. Your Age is:

   (1) ___19 or under

   (2) ___20-24

   (3) ___25-29

   (4) ___30-34

   (5) ___35-39

   (6) ___40 or over

Your questions may lend themselves to Likert Scales. These scales are usually composed of five or more response categories, e.g., Strongly Agree, Agree, Undecided, Disagree, and Strongly Disagree. There are many different kinds of Likert responses. Here are samples of some of them.

Very adequate	Very good
Adequate	Good
Inadequate	No opinion
Very inadequate	Poor
	Very poor
Strongly agree	Very important
Agree	Somewhat important
Undecided	Undecided
Disagree	Somewhat unimportant
Strongly disagree	Very unimportant

Strongly agree	Very satisfactory
Agree with reservations	Satisfactory
No opinion	Undecided
Disagree with reservations	Unsatisfactory
Strongly disagree	Very unsatisfactory
Very clear	Almost always supports
Somewhat clear	Usually supports
Somewhat unclear	Usually unsupportive
Very unclear	Almost always unsupportive
Very conscientiously	Very supportive
Somewhat conscientiously	Supportive
Somewhat unconscientiously	Unsupportive
Very unconscientiously	Very unsupportive
Greatly encourage	Very good quality
Encourage	Good quality
No opinion	Uncertain
Discourage	Poor quality
Greatly discourage	Very poor quality
Strongly encourage	Almost always valid
Encourage	Usually valid
No opinion	Usually invalid
Discourage	Almost always invalid
Strongly discourage	
Strongly favor	Definitely yes
Tend to favor	Probably yes
No opinion	Uncertain
Tend to disfavor	Probably no
Strongly disfavor	Definitely no

One way to construct an attitudinal survey is write statements that take a side on an issue and then use the Likert Scales of Strongly Agree, Agree, Undecided, Disagree, Strongly Disagree

EXAMPLE

Quest Program Attitudinal Survey for Parents

Please circle the number that best describes your reactions to each of the following statements:

	Strongly Agree	Agree	Doesn't Apply or Undecided	Disagree	Strongly Disagree
1. The Quest program helps to teach my child responsibility at school.	5	4	3	2	1

	Strongly Agree	Agree	Doesn't Apply or Undecided	Disagree	Strongly Disagree
2. The Quest program helps to teach my child responsibility at home.	5	4	3	2	1
3. Multiage grouping in the Quest program helps my child feel comfortable with children of different ages.	5	4	3	2	1
4. The Quest program helps my child feel comfortable with adults.	5	4	3	2	1
5. I like my child to make interest area choices.	5	4	3	2	1
6. I think my child has enough interest area choices.	5	4	3	2	1
7. My child feels better about him/herself since he/she has been in the Quest program.	5	4	3	2	1

If **you** construct surveys for children, remember to make them readable and understandable for their educational levels. You may wish to use only three response categories for young children.

EXAMPLE

Quest Program Attitudinal Survey for Students

Class_____

	Agree	Don't Know or Don't Care	Disagree
1. I like being able to choose which interest areas I go to.			
2. I like not having to be with one teacher all day.			
3. I like having older and younger kids in my classroom.			
4. It's a bother for me to have to make out my schedules.			
5. I wish there were more interest areas to choose from.			
6. I think kids in Quest get better each year at taking care of themselves without a grown-up.			

Recording Forms For Behavioral Observations

You must be extremely careful that information collected on behavior is objective. Here are some suggestions for preparing recording forms.

--Construct forms that are easy to use. Data collectors should have categories to check on the forms. Open-ended responses on behavior are laborious for data collectors to use and lack objectivity.

--Provide for all possible behaviors. If data collectors are to record observed behavior, account for all possible behaviors on the recording form.

--Consider how data will be summarized as you are constructing the form.

--Include specific instructions for using the recording form. Data collectors must know specifically what behavior is to be recorded so all data collectors proceed exactly the same way. You must determine how long each person or group will be observed for each specific behavior. You might observe for 15 minutes or for 30 minutes but each person or group must be observed for the same amount of time.

--Use the form a few times before you begin collecting data. You may find that the form is not convenient to use or that all behavioral alternatives were not listed. You can then revise those parts of the form that don't work.

--Train data collectors carefully. They may have questions about procedures once they have made some observations.

EXAMPLE:

Quest Evaluation Recording Form A
Responsibility in Attending Interest Areas

Interest Area_____ Date_____ Class Period_____

Children Scheduled to Attend Class	Absent	Arrived			Class Expectations for the Day		
		On Time	Late	Didn't	Met Expectations	Uncertain	Didn't Meet Expectations
1._____							
2._____							
3._____							

Quest Evaluation Record Form B
Selection and Writing of Schedules

Classroom_____ Date_____

Children	Successful Selection of Schedule by Child		Schedule Written by Child		
	Yes	No	Yes	No	Insufficient Writing Skills
1._____					
2._____					
3._____					
4._____					

Quest Evaluation Recording Form C
Interactions With Children

Child's Age_____ I.D._____ Classroom_____ Date_____

Start Time_____ End Time_____ Time Observed_____

AGE		
6 Year Olds	7 Year Olds	8 Year Olds

Procedures for Using Recording Form C

1. The observer must know the ages of the children in the multiage classroom. The observer would record the age of the child being observed.
2. The observer would watch the child selected for observation. Each interaction series would be rated as follows:

   3 = A series of statements or interactions with the child or prolonged nonverbal contact, e.g. working on a puzzle together without conversation

   2 = A single statement or interaction with the child or brief nonverbal contact, e.g. touching in a nonhostile manner

   1 = Short one or two word responses, head shakes for 'yes' or 'no', shrugs for 'don't know' or 'don't care'

3. The observer would record the interaction as 1, 2 or 3 under the appropriate column. If the observed child interacted with an eight year old, the interaction would be recorded in the eight year old column.
4. Each child is observed for 15 minutes. If the child being observed leaves the room before 15 minutes has elapsed, record the length of time the child was observed. At another time observe the same child again until he/she has been observed for a total of 15 minutes.
5. All children in all Quest family rooms will be observed.

Recording forms A & B record behavior that has already occurred. Recording form C requires data collectors to observe children in classrooms.

Task 5: Review Your Evaluation Design

Before you begin collecting your data, you should make sure all details of the evaluation design are in order. The following tasks should be completed:

1. Your program's philosophical goals clarified/defined
2. Operational goals defined for each philosophical goal
3. Behavioral objectives written for each operational goal
4. An evaluation technique determined for each objective and the criteria for achieving each objective stated.
5. The instrumentation for measuring each objective acquired or developed.

The instruments you developed should be carefully reviewed. Be sure that all questions on tests and surveys measure some objective or the quality of the program as a whole. "Pilot test" your instruments. This means to try them out in a real setting with real people. This is particularly important for behavioral observations. Usually procedures for collecting behavioral observations have to be revised once they have been used in a practical setting.

Be sure you know exactly what you will do with all your data once they have been collected. How will you summarize them? There are many ways to summarize data meaningfully although most techniques require expertise in analyzing data. Here are some summarizing suggestions to use if you have limited knowledge about statistics.

Summarizing Test Results

You are not using a control group so you will not be able to compare your program's outcomes with those of another program. Standardized tests should have norms available and you can compare the average scores in your program to the test's norms. You should have used the test's norms to determine the criteria for achieving the objective it is measuring.

EXAMPLE:

The criteria for Objective 2.1.1 state that children will score an average of at least 55 on the Piers-Harris Children's Self-Concept Scale. The norms for this instrument show a score of 55 to be the average for most children. Scores for children who completed the instrument would be added and divided by the number of scores. This average score for the children in this program would then be compared to the average score given in the norms.

Student		Score
A		63
B		52
C		70
D		48
E		54
	SUM	287

$$5 \overline{)287} \quad 57.4$$

If you developed a test that has several subtests, be sure to find subtest scores and average these subtest scores. You will need to arbitrarily determine the standard for tests you develop. Perhaps you decide that children should average 80% correct items. Once you have averaged the subtest scores you must change the average score to an average percentage correct score. To do this divide the average number correct by the total possible correct answers.

EXAMPLE

Knowledge Test Scores

Student	School Rules Subtest Score (Total No. of Items: 15)	Quest Responsibilities Subtest Scores (Total No. of Items: 10)
A	14	7
B	10	6
C	10	8
D	13	8
E	15	9
F	13	10
	Sum 75	Sum 48

Average: $6\overline{)75} = 12.50$ $\qquad$ $6\overline{)48} = 8.00$

Average Percentage: $15\overline{)12.50} = .833 = 83\%$ $\qquad$ $10\overline{)8.00} = .800 = 80\%$

Summarizing Survey Results

You will probably not want to find a total score for a survey. Results for each survey item will probably be meaningful in itself. You can tabulate the number of people who checked each response category and change these tabulated numbers to percentages. It will be useful to study response percentages to each item. However, to determine if an objective has been met, you will need to pick out all items related to a particular objective. Average the percentage of people who responded positively to items related to the particular objective and compare the average percentage with the criterion standard for the objective. Remember that responding negatively to an item, e.g. disagreeing with an item statement may be a positive response in terms of the objective. You may wish to combine "strongly agree" and "agree" when summarizing these data. "Strongly disagree" and "disagree would then also be combined.

EXAMPLE:

Parent Survey Items on Responsibility (42 surveys returned)

Item	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Didn't Answer
1. The Quest program helps to teach my child responsibility at school	13 31.0%	24 57.1%	2 4.8%	3 7.1%	0	0
2. The Quest program helps to teach my child responsibility at home.	6 14.3%	20 47.6%	7 16.7%	6 14.3%	2 4.8%	1 2.4%

Summary of Responsibility Items

	Strongly Agree/ Agree	Undecided	Strongly Disagree/ Disagree	Total Answering Item
Item No. 1	37 - 88.1%	2 - 4.8%	3 - 7.1%	42
Item No. 2	26 - 63.4%	7 - 17.1%	8 - 19.5%	41
Average Percentages for Responsibility	Sum 151.5 $2\overline{)151.5}$ 75.75 75.8%	Sum 21.9 $2\overline{)21.9}$ 10.95 11.0%	Sum 26.6 $2\overline{)26.6}$ 13.30 13.3%	

When summarizing data from several items, divide each category for an item by the total number of people responding to the item. The categories for Item 2 are divided by 41 rather than 42 because one respondent didn't answer the question. To find the average percentage, add the percentages for all responsibility items and divide by the number of items.

To illustrate another summarizing problem suppose that Item 2 had been written as follows:

2. The Quest program does <u>not</u> help to teach my child responsibility at home

Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Didn't Answer Question
11	𝍸 I	𝍸 II	𝍸 𝍸 𝍸 𝍸	𝍸 I	I
2	6	7	20	6	1
4.8%	14.3%	16.7%	47.6%	14.3%	2.4%

To summarize the responsibility items, you will need to combine the 'strongly agree'and 'agree' categories of Item No. 1 with the 'Strongly Disagree' and 'Disagree' categories of Item No. 2. Disagreeing with Item No. 2 is actually a positive response to the item. You may wish to label your summary results this way.

	Positive Responses	Undecided	Negative Responses	Total Answering Item
Item No. 1	37 - 88.1%	2 - 4.8%	3 - 7.1%	42
Item No. 2	26 - 63.4%	7 - 17.1%	8 - 19.5%	41
Average Percentages for Responsibility	75.8 %	11.0 %	13.3%	—

Summarizing Behavioral Observations

If the criteria for your behavioral observations state that a certain percentage, e.g. 80%, of your group exhibit a certain behavior, you simply need to count the number of people exhibiting the desired behavior and determine the corresponding percentage.

EXAMPLE:

Quest Evaluation Recording Form A
Responsibility in Attending Interest Areas

Interest Area Music Date 4/20/80 Class Period 3Rd

Children Scheduled to Attend Class	Absent	Arrived			Class Expectations for the Day		
		On Time	Late	Didn't	Met Expectations	Uncertain	Didn't Meet Expectations
1. Mary		✓			✓		
2. John	✓						
3. Tim		✓				✓	
4. Greg		✓			✓		
5. Jean		✓			✓		
6. Bob		✓			✓		
7. Marie			✓		✓		
8. Nancy		✓					✓
9. Wendy		✓			✓		
10. ann		✓			✓		

Since one child is absent from school, the total number of children for this class is nine. Eight arrived on time and seven met the class expectations for the day.

Arrived on Time

$9\overline{)8.}$ $\quad .889 = 89\%$

Met Class Expectations

$9\overline{)7.}$ $\quad .778 = 78\%$

To check whether Objective 4.4.1 and 4.4.2 have been achieved, the number of children arriving on time and meeting class expectations must be counted for all interest area observations combined. These totals are then divided by the number of children scheduled to attend the respective interest area excluding children who were absent.

Some observations may lend themselves to an easy to use statistical test called chi square. There are many resource books that explain how to use this statistical test. A particularly useful source is Nonparametric Statistics For The Behavioral Sciences by Sidney Siegel (McGraw-Hill Book Company, 1956). An academic library will probably have this book or would get it for you through an interlibrary loan.

Task 6 Data Collection

The data collection process must be carefully organized and implemented. If data collection does not go smoothly, you will be frustrated and the data may be contaminated. Here are some suggestions for organizing and implementing the data collection process.

--Decide who will collect data. It is extremely important that all people collecting data understand exactly what they are to do. If more than one person is observing behavior or administering instruments, make sure all of them do these tasks the same way. You might collect the data yourself or you might use teacher aides and volunteers.

--Decide when data will be collected. Be sure to collect the various data in an order that will not contaminate them. For example, it might be important to collect attitudinal data from students before collecting attitudinal data from parents. Parents might discuss their survey at home and affect their child's responses on the children's survey. It is less likely that the child will influence the parents' attitude toward the program by discussing the child's responses on the children's survey.

--Make data collection as unobtrusive as possible. When collecting data on children's behavior, children should not be told what behaviors are being observed. Don't say anything unless children ask questions. You should be truthful if children ask questions but don't explain what behaviors are being observed.

It is important to be unobtrusive in your data collecting because behavior may be affected if people know you are observing their behavior. If the observer is strange to a class, behavior can be affected by a new presence in the room. By not telling children which behaviors are being observed, the affect of the observer on the children is partially controlled. When the observer is a real novelty, you may wish to have the observer collect data for several days before data collection begins for the evaluation. This pre-evaluation data would not be used when summarizing data for the evaluation. The novelty of having an observer in the classroom usually wears off after several days and behavior will return to normal. At that point, you begin to collect data that will be used to evaluate the program.

EXAMPLE:

Terry Smith is a teacher's aide at School A. Children in the Quest program know Terry Smith but he had only been in June Johnson's classroom two times and then very briefly to deliver messages. Terry has never been in Ms. Johnson's classroom to observe or work with children. Terry will record children's interactions with other children in this multiage classroom for the Quest program evaluation. On Monday, Terry observes and records children's interactions in Ms. Johnson's room. Vincent Gordon, a nine-year-old in the class, asks Terry what he is doing. Terry replies, "I am watching this classroom to gather some information about the Quest program. The information will help us evaluate the Quest program so it will be better." Vincent asks, "what are you looking for in our classroom?" Terry says, "I can't tell you any more about this project." The children in Ms. Johnson's class were unusually quiet on Monday because many of them thought Terry was recording when they were noisy.

On Tuesday, Terry recorded children's interactions again. Children were getting use to Terry hanging around and it was too much effort to be quiet just to impress Terry. They began to behave like they usually do in their classroom.

On Wednesday Terry began collecting data on children's interactions that would be used to evaluate the Quest program. Children's behavior had returned to normal by Wednesday. The data collected on Monday and Tuesday were discarded.

--Keep all data confidential. It is important that all data collected on individuals be carefully stored so information is protected. A good way to insure confidentiality of information is to use identification numbers rather than names on all tests and surveys. A number can be assigned to each child and this number used whenever a child fills out a survey or completes a test. A master list is kept by the person responsible for the evaluation which contains each child and his/her corresponding number. With this precaution, someone might accidentally see test and survey results for individuals, but the results could only be associated with an identification number and not the individual's name.

You will need to decide whether or not to assign identification numbers to parent surveys. If numbers are assigned, the parent survey can be matched to other information collected from their child. If surveys are mailed to parents, the numbers will provide you with a way to check which parents haven't returned surveys. This is useful if you want to send a follow-up letter to those parents who haven't returned surveys. On the other hand, people may not return a survey that can be associated with them. Even if people do return the survey, the responses on it may be affected by their knowledge that you can associate the responses with them. You must consider

the affects on the survey return rate and on the responses when you decide whether or not to use identification numbers on mailed surveys. Whatever you decide, a cover letter should also be included with a mailed survey that explains the purpose of the survey and assures the respondents that their responses will be held in confidence.

EXAMPLE:

Dear Parents:

We are evaluating the Quest program this year. This semester we have begun collecting various types of information about the program from students, faculty and you as the parent(s) of a Quest child. We would like your views of the Quest program. There were many questions we could have asked you but we selected those most relevant to the Quest program goals. We recognize that you may not feel qualified to answer some questions about your child's education. However, we are interested in your views of your child's education so answer them from your point of view. We have enclosed a self-addressed, stamped envelope for you to return the questionnaire. Of course, all information will remain confidential.

--Be sure you get complete data. Unless you get data from all or nearly all of the people in a targeted group, your results will be suspect. You should make arrangements for make-up tests when children are absent on testing day. Return rates for mailed surveys can be low. Try to get at least an 80% return rate. If less than 50% of the people mailed surveys return them, interpret your results from those returned very cautiously. Missing information from a targeted group might greatly affect the results if it were available. If you mail a survey to parents you may need to send a follow-up letter two weeks later to encourage more people to respond.

EXAMPLE:

(This follow-up letter was used for a survey in which identification numbers were not used. Since there was no way of knowing which parents had returned the survey, the following letter was sent to all parents. If identification numbers had been used, the follow-up letter would be sent to those parents who had been identified as not returning a survey.)

Dear Quest Parents:

Several weeks ago we mailed you an attitudinal survey on certain aspects of the Quest program. Many of you returned your surveys and we greatly appreciate the thoughtful responses. Certainly your comments will help us improve this program.

If you have not completed your survey, please take time to fill it out and return it. The responses of all parents are important to the evaluation of the Quest program. If the survey form we mailed you has been mislaid, please contact any of us and we will be happy to mail you a new one.

Many thanks for your cooperation.

Task 7 Summarize The Results

Once all data have been collected, summarize these data in terms of the evaluation questions and standards. You will want to see if the criterion for each objective has been met. You will want to look at general results and then look at interesting details. You should also look for patterns across instruments and objectives.

EXAMPLE:

The parent survey had several items related to the goal responsibility. These were summarized as shown in Task 5 in order to determine if Objective 4.2.4 had been achieved. However, the individual items should be examined for interesting variations. On the parent survey, parents may have responded positively to 4 of 5 responsibility items. You would want to look closely at the one negative item even though Objective 4.2.4 was achieved.

Objectives 4.4.1 and 4.4.2 were achieved if children were responsible in getting to interest areas and met interest area expectations. You may find that Objective 4.4.1 was not achieved. However a closer examination may show that the intermediate children achieved this objective but not the primary children. The primary children may have met interest area expectations as a group (4.4.2) but they may have had difficulty getting themselves to the interest areas for which they were scheduled (4.4.1).

Task 8 Write the Evaluation Report

The evaluation report should answer the evaluation questions and explain how you arrived at each answer. The report should be clearly written and understandable to both professional educators and lay people. The report should include the following components:

--A description of the program being evaluated

--The evaluation question(s)

--A brief description of the evaluation design

--The results reported as meaningfully as possible in terms of the program's objectives. You may wish to include tables, figures or graphs that show summarized data.

--Interesting details and unusual patterns found in the results

--An interpretation of the results and perhaps recommendations for the future

Task 9 Make Decisions About Your Program Based On The Evaluation Results

Once the evaluation report is written it should be disseminated to appropriate audiences. After the results have been discussed, you will want to make decisions about the program based on the evaluation results. The evaluation can help you find aspects of the program that need improving and also highlight the aspects that are working well.